

REMARKS

This amendment is in response to the Examiner's Office Action dated 12/5/2003.

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the remarks that follow.

STATUS OF CLAIMS

Claims 1-36 are pending.

Claim 11 is objected to under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claims 1, 2, and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wang et al. (USP 5,661,476).

Claims 15, 16, 18, 19, and 30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lu (EP 0889388 A1).

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Acevedo (USP 5,818,361).

Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Abraham (USP 5,841,374).

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Moon (USP 5,812,117).

Claims 8, 9, 12, and 31-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Will (USP 5,825,353).

Claims 10, 11, 13, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Will as applied to claim 8 above, and further in view of Kaehler (USP 5,128,672)..

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Will as applied to claim 8 above, and further in view of Wang.

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Kaehler.

Claims 20-29 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Macor (USP 5,841,849) in view of Lu.

Claim 36 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Kaehler as applied to claim 17 above, and further in view of Lo (USP 6,072,471).

OVERVIEW OF CLAIMED INVENTION

The presently claimed invention is an electronic device that is small enough for a user to carry comprising a keyboard input aligned in a single row to provide an efficient key layout that allows a user to quickly and comfortably input characters. Input characters are provided as rows that are taken as subsets of a larger set from a QWERTY keyboard. Additional sets of keys (selection and control keys) allow the user to change the row of input keys from a first subset to a second subset or change the lettercase by actuating a key with, for example, the thumbs. The input keys or additional keys may be placed on the side of the device to allow for a larger display.

Specifically, the presently claimed invention is a portable computing/electronic device comprising a reduced set of keyboard/character function keys. The device may be used as a personal digital assistant. In order to provide a keyboard input on the limited surface space of electronic devices, the present invention provides a keyboard input aligned in a single row that

allows a user to quickly and comfortably input characters. Selection keys are provided to allow the user to change the row of input keys from one subset to another. The character and selection keys may be placed on the top or sides of the device. With the system and method of the present invention, the user does not have to refamiliarize themselves with a new keyboard layout. In particular, the device allows the user to choose a subset (of a larger complete set) to be represented by the input keys on the device, providing a traditional user-friendly QWERTY style keyboard layout in a row in a limited space rather than in an unfamiliar order that is not conveniently actuated with a user's fingers and thumbs (as with a traditional keyboard).

A second set of keys (selection keys) may be used to select which row of the traditional QWERTY keyboard is associated with the character key positions, as well as other control functions such as capitalization. The selected characters are shown on a display on the electronic/computing device in order to provide visual feedback. Alternatively, the character key positions are implemented by replacing the physical input keys with LCD displays and pressure sensors located in the corresponding key locations. The characters associated with the character entry keys are displayed directly on the corresponding key positions. An additional embodiment places the entire keyboard on the side of the display allowing for the entire top surface of the device to be utilized for display.

In a further embodiment, the electronic device is a wristwatch. The keyboard is provided as a flexible assembly with a row of character keys and control keys on the top surface and is in a pivotal relationship to the watch display. The flexible assembly is stored along and underneath the band of the wrist watch. During use, the assembly is pivoted out from under the band and laid across the user's hand (perpendicular to the band) to actuate the character/control keys, and a display provides visual feedback of the selected row and typed input. Alternatively, two flex

assemblies are utilized and when the watch is placed on a surface, the user is able to utilize both hands for input.

Further, an additional embodiment includes the electronic device as a portable phone, such as a cellular phone. Similar to the wristwatch embodiment, members having character and control keys are provided in a rotational relationship with the phone. Preferably the members are permanently attached to the phone and rotate outwards in a manner similar to the assembly of the wristwatch (perpendicular to the length of the phone). A user inputs using one hand when a single member is provided or both hands when two members are provided. In another embodiment, however, the members may be provided as externally attachable device.

In a further embodiment, the electronic device is a portable phone, such as a cellular phone, having the character keys and control keys implemented thereon (as part of the device) rather than being permanently attached members or externally attachable. Preferably the character entry keys are placed on one side of the phone and the control keys are placed on the opposite side thereof, however, other modes can be utilized. Character input is performed by the user's fingers while the control input is actuated by a user's thumbs. Ideally, the display of the phone is rotated 90 degrees from its normal lengthwise position to allow the user to correct orientation of the display. Additionally, switchable, left or right handed modes can be utilized where the function of the keys, i.e., character or control, switch sides depending upon the mode.

REJECTIONS UNDER 35 U.S.C. § 102(b)

The examiner has rejected claims 1, 2, and 6 under 35 U.S.C. § 102(b) as being anticipated by USP 5,661,476 (Wang et al.), hereafter Wang. Wang discusses a personal information device that uses an M-keyboard and divides the M keys into a first key group and a second key group. Each symbol recognized from the input keystrokes is associated with a two-

keystroke sequence in which the first key and second key of that two-keystroke sequence are selected from different key groups. Two stroke sequences received from the keyboard are matched to the symbol assignments to derive the symbol selected. A display is provided to display the characters of a selected row as well as previously input characters.

To be properly rejected under 35 U.S.C 102(b), each and every claim element must be shown in a single reference. Wang fails to provide at least the following elements: a device comprising a reduced set character entry system as a single row of input characters that are chosen as a subset of a complete QWERTY style character set, a keyboard in limited space (such as on the side of a handheld device), and a set of keys used to shift the case of the characters associated with the input character keys. The examiner states that Wang teaches a reduced set character entry system for an electronic appliance comprising a first set of multiple keys representing a selected subset comprising a single row of characters from a set of QWERTY style keyboard rows as in claim 1 of the present invention. The examiner further contends that each of the keys is associated with a character of the selected subset such that when any of the first set of multiple keys is actuated the associated character is input to the electronic appliance. However, a closer reading of Wang shows in figures 1b and 1c that elements 103a-103c provide for two rows on a display and not a single row of input character keys. Further, Wang teaches the display of a complete set of characters in many rows. Wang does not provide, nor suggest, a reduced character entry system in a single row.

The examiner also states that Wang teaches a second set of keys, at least one of the second set of keys actuated to change the selected row. The examiner has, however, incorrectly interpreted the claim and has not correctly correlated the claim language with the present invention's specification. First, the keys 102-1-102-6 in Wang as indicated by the examiner as input actually correspond to a vertical group of keys that cannot input a character alone.

Rather, as described in the specification of Wang, keys 102-1 and 102-6 are the first step in a two-stroke sequence. In the present invention, each key in the row of character keys corresponds to a character in a row of the QWERTY style keyboard. Secondly, the “second set of keys” which the applicant refers to are not input keys at all. Rather, as disclosed in the present invention’s claim and specification, the second set of keys are provided as selection or control keys, designed to change the character input keys from a selected subset in the row to an additional subset. On page 3 of his argument, the examiner has incorrectly interpreted the use of the second set of keys. Wang does not provide nor suggest such type of control keys. The examiner also states that Wang teaches the actuation of one of the second set of keys to shift the case of the characters associated with the first set of keys. However, when closely reading this text, Wang states that an additional key must be added. Wang does not disclose shifting the case of a subset row as claimed in the present invention.

In the applicant’s present invention, a first set of keys is provided as character entry keys and a second set of keys is provided as selection or control buttons on an electronic device. In the first set of keys each key position corresponds to one character out of a set of selected characters. Using the second set of keys (selection keys), the user selects which set of characters the first keys will represent, as well as other functions such as shifting between upper and lower case characters and alpha-numeric control. For example, character key positions are provided to correspond to the symbols of a row of a traditional QWERTY keyboard. The second set of keys (selection or control keys) may be used to select which row of the traditional QWERTY keyboard is associated with the character key positions, as well as other control functions such as capitalization. The selected characters are shown on a display on the electronic/computing device in order to provide visual feedback.

Wang is a personal information device having “M” number of keys divided into a first group and second group. Inputting each symbol requires a two-stroke sequence in which a first key and then a second key are selected from different keygroups in order to input a symbol. Wang displays a complete set of characters to the user on a device. For example, a first row of keys is provided horizontally and a second row is provided vertically. The user chooses from the set by selecting a key from the horizontal row and from the vertical row (not necessarily in that order) in order to obtain the selected input key to be output on the display. The present invention displays a selected subset of characters in a single row. The present invention specifically displays a chosen set of characters from QWERTY style keyboard rows. Wang does not explicitly or implicitly disclose or suggest displaying a selected subset. Wang also does not teach or suggest a second set of keys used to change a selected row (subset) or to shift the case of the characters associated with the character keys. Further, Wang teaches away from the present invention’s need to provide a keyboard on a limited space by displaying the entire set of characters.

Wang clearly fails to provide many of the claim elements and therefore cannot be a proper rejection under 35 U.S.C. § 102(b).

Claims 15, 16, 18, 19, and 30 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lu. Lu discusses a data input interface for input of text into a hand-held computer device. A subset of characters is chosen by the user so that the user can view only a few characters at a time, allowing better visibility and easier use of a stylus. The subsets that are associated with the displayed characters are sequences of the alphabet (e.g. A through F, G through L, etc.).

The examiner notes for claim 15 that Lu teaches the use of a set of character keys in a single row in an input device. However, as pointed out by the examiner on page 14, Lu does not

explicitly or implicitly disclose or suggest displaying a selected subset of traditional QWERTY style keyboard rows as in the presently amended claim. The present invention specifically displays a chosen set of characters from QWERTY style keyboard rows. As noted in the specification of the present invention, most devices, such as the Lu reference, have keys arranged in a different manner than a traditional QWERTY keyboard, making the process of inputting complicated for those familiar with it. A QWERTY keyboard is a known standard for input, and its replication as single rows enables the user to easily input into a device without the need for retraining, learning, and memorizing a new sequential key layout (i.e. not having to visualize the letter sequences as they appear, but rather knowing the sequences from previous experience). Because claims 16, 18, and 19 are dependent on claim 15, and Lu does not provide the QWERTY style keyboard rows as in the present invention, the rejection of these claims is invalid.

For claim 30, the examiner states that Lu teaches an electronic appliance having a first set of input keys located on a side surface. However, on pages 12 and 14 of the examiner's argument, the examiner explicitly states that "Lu does not specifically state that one or more of the first set of input keys are on a side surface." Lu does not show input keys on a side surface with respect to the described top, bottom, and plurality of side surfaces of the electronic appliance in the present invention. Further, Lu describes figures 2-7 (as noted by the examiner) as illustrations of a display which is located on the top surface of the PDA or pager. Lu does not imply the use of input keys on a side surface. The examiner additionally states that the first set of input keys as described by Lu are a subset comprising a row of characters from a set of keyboard rows. However, Lu describes an alphabetical group of characters that are divided in terms of the order of the alphabet, not keyboard style rows as in the present invention. Lu does not implicitly or explicitly suggest the use of a traditional QWERTY style keyboard as in the present invention.

As noted by the examiner on page 14 of his argument, Lu does not teach that “the subsets are rows of a QWERTY style keyboard layout.” Finally, the examiner states that Lu teaches at least one selection key is located on a side surface. However, the examiner clearly states on page 10 of his argument that “Lu does not teach that the selection key is located on one of the side surfaces.” The rejection on claim 30 is therefore incorrect and invalid.

The present invention uses an additional key that is not part of the input keys as the selection key for changes between subsets, whereas Lu uses the keys as both input and selection keys. In order to be properly rejected under 35 U.S.C. § 102(b), Lu must show each and every claimed element of the present invention. Lu does not teach the elements of the present invention. Lu does not teach the use of a selection key on a side surface. Lu illustrates the display which is located on the top surface of the device and does not show or suggest the use of a selection key on the side surface of the device. Lu does not illustrate or suggest the use of input keys and at least one selection key on any of the side surfaces of the device, and, therefore, does not anticipate each and every element of the claimed present invention.

REJECTIONS UNDER 35 U.S.C. § 103(a)

Claim 3 is rejected by the examiner under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Acevedo. The examiner states that Wang does not teach that each of the first set of multiple keys comprises an electronic character display and input mechanism. The examiner states that Acevedo teaches that each of a set of multiple keys comprises an electronic character display and input mechanism, the electronic character display retaining an image of an associated character. Acevedo also provides a plurality of display keys having a liquid crystal display, light emitting diode, or other similar display situated thereon, used with software to assign and depict alphanumeric characters and indicia to the keys. However, a closer reading

of Acevedo shows that it is simply is a conventional keyboard for use with a computer and software. Acevedo does not teach the use of a compact, reduced character keyboard input device having a single row of characters. Further, Acevedo does not invite combination with Wang to produce a portable, compact, reduced character set entry system in an electronic device as claimed by the present invention. Therefore, the examiner has failed to establish a suggestion or motivation for such combination, as well as the teachings provided in claim 3 of the present invention.

The examiner has rejected claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Abraham. As noted by the examiner on page 7 of the rejection, Wang does not specifically teach a top surface, bottom surface, a plurality of side surfaces connecting the top surface and the bottom surfaces, with the electronic appliance display disposed on the top surface, nor does it teach the first set of at least ten keys disposed on the top surface, and the second set of keys disposed on one or more of the side surfaces. The examiner states that Abraham teaches a top surface, a bottom edge, a plurality of side surfaces connecting the top surface and the bottom surface with the electronic appliance display disposed on the top surface. The examiner states that Abraham also teaches a first set of at least ten keys disposed on the top surface and a second set of keys disposed on one or more of the side surfaces. However, claim 4 is dependent on claim 1, and the device as disclosed in Abraham does not provide a reduced set character entry as disclosed in the present invention. Abraham provides a portable word processor having a display and a keyboard with six toggle keys operated by a user's fingertips and the others by the user's thumbs. The characters associated with the keys in Abraham are not a selected row of characters that are a subset of a complete character set of keyboard rows. Abraham provides toggle keys that pivot in any of six directions to make contact with one of six conductive contacts that are associated with a character key. A seventh character key is associated with the

depression of the toggle key. The complete set of input characters are always available in Abraham. Thus, Abraham does not disclose a method of changing the character set. Further, Abraham does not disclose a single row of characters that are a subset of the complete set of QWERTY style keyboard rows.

Also, the present invention allows for not only control keys but also a set(s) of character (input) keys to be on the side surface. In regards to claim 5, the examiner further suggests that Abraham also teaches one or more of the first and second set of keys are disposed on one or more of the side surfaces. Although thumb keys are provided on the side of the device in Abraham, they do not provide the same control function(s), for example, changing the selected row of characters, as claimed in the present invention. The thumb keys of Abraham are provided only to perform functions on the input set and do not shift from one subset to another subset. The thumb keys of Abraham are not input character keys. Neither Wang nor Abraham teach or suggest the use of input keys and control keys on the side surface of an electronic device.

Since Wang utilizes a two-keystroke sequence for character entry and Abraham utilizes a pivoting toggle key that contacts a conductor for inputting a character, it would not have been obvious or a motivation for combining these references. Even if the combination was deemed proper, the combination of Wang and Abraham would not produce the claimed elements of the present invention.

Claim 7 is rejected by the examiner under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Moon. The examiner contends that Wang does not specifically teach a second set of keys, having a first key that is actuated to change the currently selected row to a row above the currently selected row, and a second key that is actuated to change the currently selected row to a row below the currently selected row.

However, the examiner describes Moon as teaching two such keys. Claim 7 is dependent on claim 1. Claim 1 of the present invention selects a single row of input characters as a subset of a QWERTY style keyboard rows. The keys in Moon, however, are used to scroll through the list of available inputs, which are displayed in alphabetical and numerical order. Moon does not disclose a single row of characters as displayed or chosen as a subset from a QWERTY style keyboard set as claimed in the present invention.

As previously noted, Wang also does not disclose a single row of characters that are a subset of a complete QWERTY set. Rather, Wang teaches the display of the complete set of characters to the user. Therefore, it would not have been obvious to combine the scroll keys of Moon with the system of Wang to allow quicker and more efficient entry of keyed data, as all input characters would be displayed and thus not achieve the desired result of the subject patents. In addition, Moon does not particularly invite such a combination. Since the combination of Moon and Wang is not suggested, nor would it produce the claimed elements, it is not deemed proper.

Claims 8, 9, 12, and 31-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Will. As previously noted, Lu provides a subset of characters that is chosen by the user so that the user can view only a few characters at a time, allowing better visibility and easier use of a stylus. The examiner suggests that Lu uses input characters that are a subset of a row of characters from a set of keyboard rows. However, Lu describes an alphabetical group of characters that are divided in terms of the order of the alphabet, not keyboard style rows as in the present invention. The subsets that are associated with the displayed characters are rows of the alphabet (e.g. A through F, G through L, etc.). Additionally, it is stated by the examiner that Lu teaches at least one selection key for changing from one subset to another. However, the examiner notes that Lu does not teach that the selection key is located on one of the side surfaces.

However, he states that Will teaches a selection key that is located on one of the side surfaces, and that it would have been obvious to one of ordinary skill to combine the selection key as taught by Will with the electronic appliance of Lu. Will discloses a rotating thumbwheel that when rotated up or down allows a user to move between menus or windows. The thumbwheel of Will may be used for dialing, such that the user can rotate between single numbers, letters, or digits. However, the thumbwheel of Will is not used in the same manner as disclosed in the present invention. In the present invention, the actuation of the selection key is used to change from a first subset to a second subset. Will does not teach or suggest the use of the thumbwheel for changing between sets of a single row of input keys.

The combination of Lu and Will would not have been obvious because the reference to the selection key of Lu has been misinterpreted. The selection keys (a, g, m, s, y, or 0) that are described in Lu are the same keys used for input keys; that is, the input keys in Lu also act as keys for selecting subsets. The present invention requires that the input keys be on a top surface and at least one selection key be located on a side surface of the device. The selection key of the present invention is provided as an additional key that is not associated with the input row. If the keys in Lu are used as both input and selection keys, and they remain in a single row as required by the present invention, they can not be located on different surfaces. Further, as noted by the examiner on page 10, Lu does not teach the use of a selection key on a side surface. Because Lu does not invite the use of an additional key or a key on the side of the device, the combination of Lu and Will is not obvious and is found to be improper. Further, because both Lu and Will fail to provide or suggest the combination for each and every element in claim 8, dependent claims 9 and 12 are not shown by Lu or Will as they inherit the limitations of the independent claim.

Claim 31 is dependent on claim 30. The examiner states that Will teaches that the electronic appliance may be a portable phone. Although Will illustrates a portable phone device, claim 31 requires that each and every element of the independent claim be taught. As discussed above, Lu does not show input keys on a side surface with respect to the described top, bottom, and plurality of side surfaces of the electronic appliance in the present invention. Further, Lu describes an alphabetical group of characters that are divided in terms of the order of the alphabet, not keyboard style rows as in the present invention. Finally, Lu does not teach the use of a selection key on a side surface. Lu only illustrates the display which is located on the top surface of the device and does not show or suggest the use of input keys or a selection key on the side surface of the device. Therefore, neither Lu nor Will teach the elements in claim 31. The requirements of claim 30 are not met and a prima facie case of obviousness under 35 U.S.C. § 103 has not been established.

The examiner states that Will teaches the use of input keys and the selection key on different ones of the side surfaces as claimed in claims 32 and 33 of the present invention. Since no input keys are on a side surface of Lu or Will, the input and selection keys can not be located on different side surfaces of the device. As previously noted by the examiner on pages 12 and 14, neither Lu nor Will state the use of the first set of input keys are on a side surface. The present invention illustrates the single row of input keys on one side surface and at least one selection key another side surface (with respect to the device having a top and a bottom). Claims 32 and 33 are dependent on claims 30 and 31 (respectively) whose elements are not provided in Lu or Will. Neither Lu nor Will (or their combination) suggest or illustrate the use of input keys and selection keys on different side surfaces nor have they been proven to establish a case of obviousness.

Claims 10, 11, 13, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Will as applied to claim 8 above, and further in view of Kaehler. The examiner states that neither Lu nor Will specifically teach a plurality of displays. The examiner contends that the Kaehler teaching of a text display and a character set display screen illustrates the use of a plurality of displays, and that it would have been obvious to combine the teachings of Kaehler with Lu in view of Will. However, as claim 10 is a dependent claim (on claims 8 and 9), and it is shown that Lu and Will do not suggest or show the required elements of the present invention, the rejection is deemed improper and is not obvious to combine Kaehler with Lu in view of Will.

Claim 11 has been cancelled and rejections therefore are deemed moot.

For claim 13, the examiner states that Kaehler teaches shift buttons that are located on one of the side surfaces for switching the displayed characters between upper case and lower case. However, claim 13 is dependent upon independent claim 8, which requires a single row of input characters as well as at least one selection key on the side surface for shifting the case of the subset. Kaehler does not suggest a single row of input characters, a selection key on the side surface of the device, and a controlling key on one of the side surfaces for shifting the case of the input keys. Therefore, Kaehler does not teach the use of a control key as in the present invention. Furthermore, the combination of Lu and Kaehler is not implied or suggested.

The examiner states for claim 34 that neither Lu, Will, nor Kaehler state that one or more of the first set of input keys are on a side surface. Claim 34 is dependent on claims 33, 31, and 30. Lu, Will, and Kaehler fail to show the use of input keys on a side surface. Further, neither Lu nor Will nor Kaehler (or their combination) suggest or illustrate the use of input keys and selection keys on different side surfaces.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Will as applied to claim 8 above, and further in view of Wang. Claim 14 is dependant on claim 8 and adds that the subsets are rows of a QWERTY style keyboard layout. It is noted by the examiner that neither Lu nor Will specifically teach that the subsets are rows of a QWERTY style keyboard layout. The examiner also states that Wang teaches subsets that are rows of a QWERTY style keyboard layout. However, as previously discussed, Wang fails to provide or suggest at least the single row of characters chosen as a subset of a set of QWERTY style keyboard rows, a keyboard in limited space such as on the side of a handheld device, and a set of keys used to shift the case of the characters associated with the character keys. Therefore, it would not be obvious to combine Lu, Will and Wang, and this combination would not produce the claimed invention. In particular, Lu does not provide all of the claimed elements in claim 8. Because the combination of each of the references lacks the claimed elements, the examiner has failed to establish a prima facie case of obviousness as required, and the rejection is without merit.

The examiner states that Kaehler teaches that one ore more of the character keys and selection keys are disposed on one or more of the side surfaces. However, Kaehler does not disclose a set of input keys in a single row or illustrate or suggest the placement of input character keys on the side surface of the device. Therefore, the combination of the device in Lu with the reduced keyboard of Kaehler is not obvious and would not produce the elements of this claim.

Claims 20-29 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Macor in view of Lu. Regarding claims 20-29, Macor fails to disclose character keys or a

flexible assembly having a set of character keys located thereon, a single row of input characters based on keyboard rows, an input assembly that is externally attachable to a wrist watch or portable phone, a flexible assembly that is pivotal from a parallel (for example, along and underneath the wristband) to a position substantially perpendicular, and display that is rotated to be in an orientation appropriate for viewing by a user.

Macor discusses a personal telecommunication device, such as a portable phone or a wrist band, that allows a user to operate the device as a telephone or electronic messaging device with one finger by using virtual function keys and buttons. In order to choose a selected key, a trackball or joystick is maneuvered to the location of the selected key and depressed. The input characters of Macor, in both the wrist watch and portable phone, are virtually displayed as a complete set rather than as a subset of a complete set as disclosed in the present invention.

The examiner states that Macor does not teach that the display shows a selected set of input characters and that the flexible assembly having a set of character keys located thereon. In turn, the examiner suggests that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the reduced character entry system of Lu with the wrist mounted input/output device of Macor. However, Lu fails to provide or suggest the combination or use of the device as a wristwatch or portable phone with character keys and at least one control (selection) key. Also, by using a trackball, Macor teaches away from the single row of character keys the present invention. Therefore, the combination of the system of Lu with Macor would not produce the claimed invention.

Macor does not teach that the display shows a selected set of input characters. Further, in particular reference to claims 23, 24, and 27 of the present invention, Macor does not disclose character keys or a flexible assembly having a set of character keys located thereon that is connected to the display. The examiner says that Macor teaches that an input assembly is

integrated with the portable phone, and that the input assembly is rotatable from a closed position where the input assembly is substantially enclosed within the housing to a position where the character keys and the control key are exposed for actuation. However, the flexible assembly does not correlate with the claimed elements of the independent claim 23—wherein the input assembly is a selected set of input characters comprising a single row from a set of keyboard rows. Macor has a complete set of input characters on the main screen of the electronic device, not on the flexible assembly. Further, Macor does not disclose a subset of inputs on the flexible assembly.

The examiner states that Macor teaches that the information displayed on the display is rotated to be in an orientation appropriate for viewing by a user utilizing the input keys. Macor's display is rotated by a hinge on a base member to reveal the display and keys at the same time; that is, the display must be rotated on the hinge and the device "opened" in order to allow the user to use the device. In the present invention, however, the display is rotated in order to allow the user to use the row of input keys located on the side of the device comfortably. This teaches away from claim 35. There is no teaching or suggestion of using input keys on the side of the device in Macor.

Claim 36 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lu in view of Kaehler as applied to claim 17 above, and further in view of Lo. Claim 36 is dependent on claim 30 and adds that an equal number of input keys and selection keys are located upon the first one and second one of the side surfaces, with at least one key of the set of input keys acting as a selection key and at least one selection key acting as an input key as a result of switching between dominate hand modes. As stated by the examiner, neither Lu nor Kaehler teach that an equal number of input keys and selection keys are located upon the first one and second one of the side

surfaces. As already noted, it would not have been obvious to locate the input or selection keys on any of the side surfaces of Lu and Kaehler. Lu and Kaehler also do not teach at least one key of the set of input keys acting as a selection key and at least one selection key acting as an input key as a result of switching between dominate hand modes.

Lo provides for an ambidextrous upright computer mouse. Lo teaches that dominant hand modes can be selectively activated and disabled and the use of control keys on a computer mouse. Lo does not teach the use of a reduced character input system, nor does it teach the use of a single keyboard style row depicting a subset of inputs. The combination of the left-right switching mechanism of Lo with Lu and Kaehler would therefore not produce the claimed invention, nor would it be deemed obvious. Thus, the rejection of this claim is without merit.

SUMMARY

As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicant's presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

As this amendment has been timely filed within the set period of response, no petition for extension of time or associated fee is required. However, the Commissioner is hereby authorized to charge any deficiencies in the fees provided to Deposit Account No. 09-0441.

If it is felt that an interview would expedite prosecution of this application, please do not hesitate to contact applicant's representative at the below number.

Respectfully submitted,



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